Ceramic Materials

THE ROESSLER & HASSLACHER CHEMICAL COMPANY
CHEMISTS
NEW YORK

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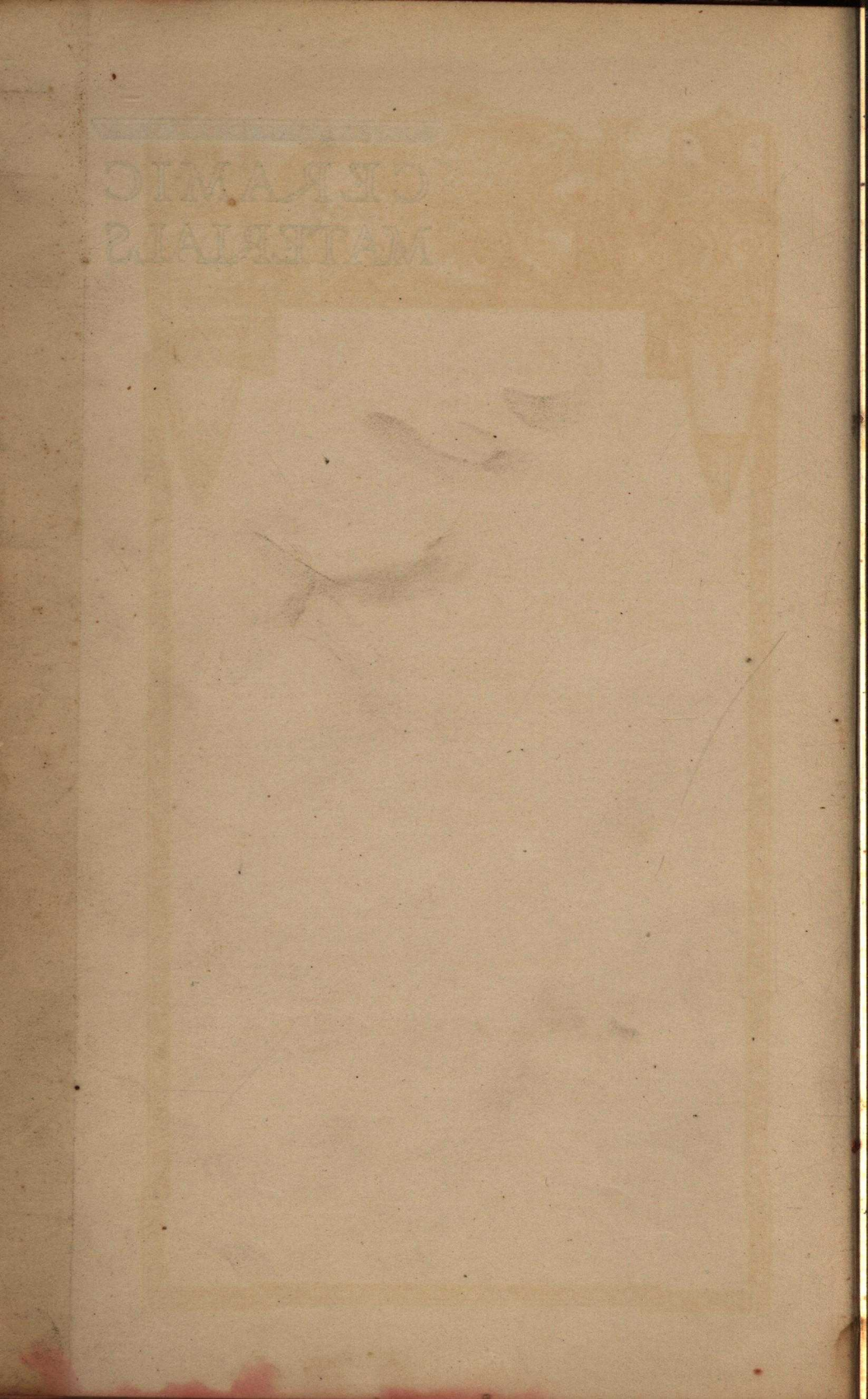
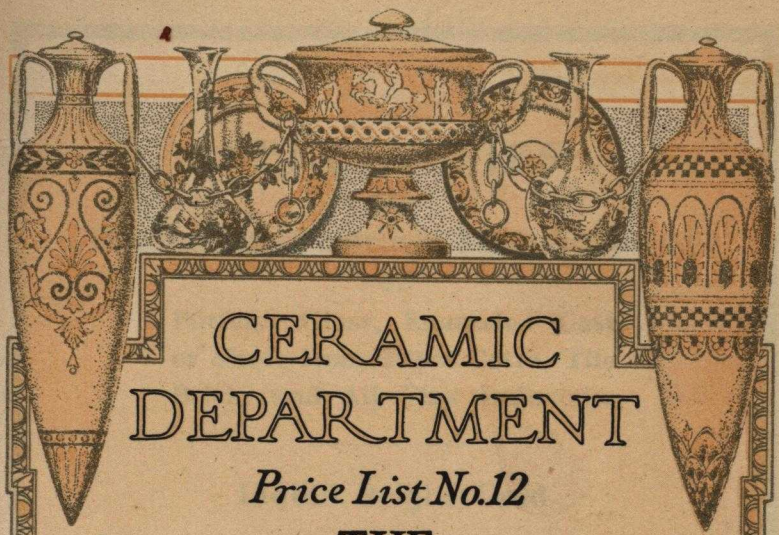
CERAMIC MATERIALS





CERAMIC DEPARTMENT

Price List No. 12

THE ROESSLER & HASSLACHER CHEMICAL COMPANY

Main Office

100 WILLIAM STREET
NEW YORK, N.Y.

Factory

PERTH AMBOY
N.J.

Branches and Warehouses

CHICAGO, ILL.
Ferdinand C. Schapper
Manager
401-6 Ogden Building
192 North Clark Street

EAST LIVERPOOL, OHIO
Harry W. Smith
Manager
314-318 Smith Street

Representatives at

KANSAS CITY, MO.
BOSTON
NEW ORLEANS
PHILADELPHIA

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by
The Roessler & Hasslacher Chemical Co.

Press of Robert L. Stillson Co., N. Y.

SPECIALTIES

for

Decorating—Coloring—Manufacturing

of

Pottery, Glass, Enameled Cast or Sheet Iron, Terra Cotta, Tile Brick, and All Clay Industries

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Liquid Bright Gold

Green Gold — Liquid Matt Burnish Gold
Enamel Gold — Stamping Gold
Gold Lustre

Liquid Bright Silver — Silver Lustre
Liquid Bright Platinum — Platinum Lustre

Overglaze—Colors—Underglaze

Glass Colors — Liquid Lustre Colors
Matt Glazes — Majolica Colors
Oxide and Color Bodies
Enamels, Fluxes and Metal Oxides, etc.

High Grade Chemicals

Oxide Antimony	Arsenic, White
Oxide Chrome	Barytes Carbonate
Oxide Cobalt	Boracic Acid, and Borax
Oxide Manganese	Clays and Minerals
Oxide Tin A1	Leukonin
Oxide Zinc	Potash Carbonate

and other materials
used by Ceramic Manufacturers

GOLD, SILVER AND PLATINUM PREPARATIONS

LIQUID BRIGHT GOLD

R. & H. C. C., Frankfort Gold
R. & H. C. C., Passau Gold
R. & H. C. C., Nuremberg Gold

1000 grammes equal to 32 oz., 3 dwt. Troy	Per 1000 grammes
In quantities of 1,000 grammes at a time	$100.00
Less in 100 gram bottles	105.00
Less in 50 gram bottles	115.00
Less in 20 gram bottles	125.00

Lemon or Green Gold	per kilo,	$110.00
Enamel Gold	per kilo,	100.00
Stamping or Printing Gold	per kilo,	100.00
Gold Lustre	per kilo,	25.00

ESSENCE FOR THINNING LIQUID BRIGHT GOLD

Per 1,000 grammes	$5.00
Per 100 gram bottle	.60
Per 20 gram bottle	.15

LIQUID MATT BURNISH GOLD

After firing to be polished with glass brush or sand

Per 1,000 grammes	$250.00
Per 100 gram bottles	260.00
Per 20 gram bottles	275.00

TERMS NET CASH

Made in America—Prices subject to change

LIQUID BURNISH GOLD

At same price as Liquid Bright Gold

LIQUID BRIGHT SILVER

	Per 1000 grammes
In quantities of 1,000 grammes at a time	$115.00
Less in 100 gram bottles	125.00
Less in 50 gram bottles	130.00
Less in 20 gram bottles	135.00

LIQUID BRIGHT PLATINUM

In quantities of 1,000 grammes at a time	120.00
Less in 100 gram bottles	130.00
Less in 50 gram bottles	135.00
Less in 20 gram bottles	140.00

BURNISH GOLD

Brown Gold, chemically pure, per oz. (troy)	25.00
Brown Gold, chemically pure, per dwt.	1.35
Gray Powder, prepared and fluxed, per oz. (troy)	15.00
Gray Powder, prepared and fluxed, per dwt.	.80
Black Powder, prepared and fluxed, per oz. (troy)	16.00
Black Powder, prepared and fluxed, per dwt.	.85
For printing, per oz. (troy)	17.25
For printing, per dwt.	.90

Any other Grade of Burnish Gold Manufactured to Order

POWDER GOLD

Chemically Pure—for Dusting	Per gramme
Red	1.80
Yellow (Roman Gold)	1.80
Lemon (Light Gold)	1.80
Green	1.70
Serves Gold (Deep Gold)	2.00

GOLD SOLUTION FOR DECORATING GLASS PEARLS

Per 1,000 grammes	85.00
Per 20 grammes	2.00

LIQUID F

To produce yellow shade when mixed with Liquid Bright Gold.

Per 1,000 grammes	35.00
Per 20 grammes	1.00

TERMS NET CASH

Made in America—Prices subject to change

GREEN GOLD PASTE

To mix with Liquid Bright Gold, to produce yellow shade, imitating Burnish Gold. See directions, folio 94.

Per 1,000 grammes $120.00
Per 20 grammes 2.75

THICK OIL

Best quality, per pound $1.25

SUNDRIES

Prices named on application

Gold Chloride, per oz .....
Platinum Chloride, per oz .....
Potassium Chloro, Platinite, per oz .....
Silver Chloride, per oz .....
Silver Nitrate, per oz .....
Silver Oxide, per oz .....
Silver Sulphuret, per oz .....

TERMS NET CASH

Made in America—Prices subject to change

Sample Collections

No. 1—40	Principal Overglaze Colors	$2.00
No. 2—25	Principal Underglaze Colors	1.25
No. 3—25	Principal Glass Colors	1.25
No. 4—20	Principal Majolica Colors	1.00
No. 5—	Complete set Prof. Charles F. Binn's Matt Colors	1.00
No. 6—10	Oxide or Body Colors	1.00

TERMS NET CASH

Made in America—Prices subject to change

Enamel (Overglaze) Colors

Matt or Satin Finish Overglaze Colors

Enamel (Overglaze) Printing Colors

Fluxes

Underglaze Colors

Liquid Underglaze Colors

Vitrifiable Enamels

Glass Colors

Majolica Colors

Matt Glazes

Color Bodies and Oxides

Liquid Lustre Colors

Chemicals

Metal Pyrometers

Enamel (Overglaze) Colors

May be used for painting, tinting, dry and wet grounding, printing and spraying work on china, stoneware and enameled steel. Special colors for any purpose will be submitted upon request or matched upon receipt of sample. To be fired at 740° to 800° C=1364° to 1472° F. Cone 017—015.

Special discounts allowed for larger quantities

BLACKS

No.		Price Per lb.
	Banding Black	
233 M		$2.00
	Black	
3		1.75
6	for printing and grounds	1.75
6 A	hard	2.00
6 B	soft for grounds	1.50
45 M		1.50
348 M		1.40
69 M		1.50
67 M		1.50
279 M		2.00
312 M	soft	2.00
109	for dolls	1.75
135 M	for printing and grounds	1.75
154 M	for printing	1.50
621 M		2.00
628 D		1.75
788		3.50
175 M	for glass	1.75
113	for grounds	2.50
141	for grounds	1.75
	Blue Black	
240 M	(corresponding with Meissen Blue Black)	3.25
273 M		2.50
481 M		3.00
	German Black	
786 D		1.75
	Gray Black	
224 M		2.00
187 M		1.75

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Lettering Black	
196 M		$1.75
	Matt Black	
242		2.00
638 M		2.00
	Stamping Black	
979	for Enameled Ware	1.50

BLUES

	Banding Blue	
1		2.00
62 M		2.00
81 M		2.00
120 M		2.00
159 M		2.00
1 A	hard	2.00
55 M		2.00
1 B	soft	2.00
313 M	soft	2.00
70 M	for printing	2.00
102 M		2.00
80 M		2.00
716 D		2.75
	Blue	
117 M		2.50
118	III	2.00
341 M		2.00
616 D		2.00
621 D		3.00
	Celestial Blue	
155 M		2.50
2	for grounds	2.00
2 A	hard for printing	2.00
2 B	soft (Turquoise)	2.00
119	very soft	2.00
119 B	extra soft for grounds	2.00
529 D		2.00
543 D		1.75
	Copenhagen Blue	
665 D		2.25

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Dark Blue	
24	for printing, very deep	$2.50
643 M	hard	2.50
251 M		2.50
211 M	(Blue Foncè)	2.50
	Gray Blue	
110		3.50
526 M		2.00
	Green Blue	
14		2.50
14 B	soft	2.50
213 M		2.50
275 M		2.50
	Dark Green Blue	
633 M		2.50
	Grounding Blue	
510 M		2.00
510 B		2.25
	Lavender Blue	
53	for grounds	2.00
649 D		2.00
	Light Blue	
162 M		3.75
121 M		5.00
198 M		2.50
277 M		2.50
51 M	(Glassblau) for grounds	2.50
	Matt Blue	
240		2.50
	Dark Matt Blue	
641 M		2.50
	Peacock Blue	
551 D		2.50
287 M		3.25
649		3.00
	Rich Peacock Blue	
643 D		2.50

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Pigeon Blue	
544 M		$2.50
	Printing Blue	
338 M		3.00
	Dark Printing Blue	
662 M	hard	2.50
	Relief Blue	
674 M		2.00
	Robin's Egg Blue	
601 D		2.00
	Stamping Blue	
912 D	for Enameled Ware	1.50
	Steel Blue	
546 M		2.00
	Ultramarine Blue	
61	for grounds	2.50
149		2.50
618 D		2.50
	Violet Blue	
426 M		2.00

BROWNS

	Bitumen Brown	
44		1.50
45		1.50
53 M		1.50
54 M		1.50
	Black Brown	
219 M		2.00
151		1.55
	Brown	
290 M		1.50
118 M		1.50
182 M		1.60
204 M		1.25
137		1.75
138		1.50
233		1.75

Made in America—Prices subject to change

Matt or Satin Finish Overglaze Colors

Enamel (Overglaze) Printing Colors

Fluxes

Underglaze Colors

Liquid Underglaze Colors

Vitrifiable Enamels

Glass Colors

Majolica Colors

Matt Glazes

Color Bodies and Oxides

Liquid Lustre Colors

Chemicals

Metal Pyrometers

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
332 M		$1.35
346 M		1.50
205 M		2.00
235 M		1.75
227 M		2.00
289 M		1.50
619 M		1.50
13		1.50
641 D		1.50
624 D		1.50
	Brunswick Brown	
106 M		1.50
179		1.25
189 M		1.50
223 M		1.50
553 D	dark	2.00
	Chamois	
73	for grounds	1.75
74		1.75
292 M		1.50
83	III	1.50
	Chamois (Shammy) Brown	
589 D		2.50
	Cherry Brown	
93		1.50
	Chestnut Brown	
7		1.50
7 B	soft	1.50
170 M		1.50
73 M	light	1.50
62		1.50
215 M	dark	1.50
545 M		1.50
564 A	matt	1.50
564 M		1.50
588 M		1.75
	Chocolate Brown	
163		1.50
602 M		1.50

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Coffee Brown	
21	for painting	$1.50
	Dark Brown	
215 P	transparent	1.50
50 M		1.25
183 M		1.75
47	for painting	1.50
144		1.75
105 A	for painting	1.50
535 D		2.00
	French Brown	
200 M		2.50
156 M		2.00
434 M		2.00
	Green Brown	
547 M		2.00
	Hair Brown	
99 M	dark blond	1.50
117	light blond	1.75
318 M	blond	1.25
259 M	blond	1.75
291 M	dark blond	1.75
	Landscape Brown	
281 P	dark	2.00
	Light Brown	
232 M		1.50
98 M	(Gliederbraun)	1.50
513 M	(Gliederbraun)	1.50
520 M		1.50
	Liverpool Brown	
		1.25
	Matt Brown	
237		1.25
	Matt Coffee Brown	
166		1.75
	Matt Dark Brown	
269 M		2.00

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Matt Red Brown	
268 M		$2.00
	Matt Yellow Brown	
236		1.25
	Meissen Brown	
793 D		2.75
	Moss Rose Brown	
120		1.50
	Paris Brown	
46	dark	1.50
20	for shading	1.50
123 M	dark	1.50
	Photo Brown	
681 D	dark	1.50
139 M	light	1.50
	Printing Brown	
172		1.50
173		1.25
339 M		1.50
	Purple Brown	
164 A		1.50
	Red Brown	
8		1.50
79		1.50
79 A		1.50
79 W		1.50
80	for printing	1.50
270 M	light	1.50
271 M	dark	1.50
98		1.50
	Russet	
538 D		1.50
	Sepia	
28		1.50
	Sepia Brown	
105 M		1.50
188 M		1.50

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Shading Brown	
22		$1.50
145 M		2.00
19 M		2.00
168		1.75
762 D		3.00
	Meissen Shading Brown	
684 D		2.50
	Stamping Brown	
911 D	for Enameled Ware	1.50
	Terra Cotta	
645 D		1.50
	Van Dyke Brown	
107 M		1.50
190 M		1.50
29	hard Yellow Brown	1.50
549 D		1.50
	Venison Brown	
542 M		1.75
	Violet Brown	
167		7.50
	Wheeling Brown	
		1.75
	Wood Brown	
112		1.50
	Yellow Brown	
131		2.00
323 M		1.75
248 M		1.75
226 M		2.00
283 M		2.00
293 M		2.00
41	light	1.50
199 M	dark	2.00
175	(Matt Color)	2.00
336 M		1.50
464 M		2.00
739 D		2.00

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

CARMINES

No.	Carmine	Price Per lb.
544 D	hard	$6.25
545 D		6.00
111		4.00
111 A	hard	5.00
22 K		3.75
11112	for grounds	3.75
503	for grounds	4.50
514	soft	4.50
	Gold Carmine	
76		5.00
76 A	hard	6.25
	Rose Carmine	
105		4.50

GRAYS

	Ash Gray	
164 M		12.50
	Blue Gray	
54		11.00
519 M		2.50
527 M		9.50
	Copenhagen Gray	
595 D		9.50
897 D		2.50
	Dark Gray	
645 M		2.50
518 M		2.50
	Dove Gray	
696 M		5.00
	Gold Gray	
740 D		3.75
	Gray	
893 D	for flesh	3.25
329 M		5.00
347 M		3.75
584 D		4.25
958 D		6.25

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Green Gray	
615 D		$5.75
918 D		2.40
165		12.50
236 M		12.50
689 M		2.50
	Kingston Drab	
546 D		3.25
	Light Gray	
644 M		2.00
	Neutral Gray	
284 M		2.50
	Pearl Gray	
201 M		12.50
162		12.50
688 M		2.50
	Printing Gray	
649 M		3.25
	Silver Gray	
18	light for grounds	12.50
18 B	soft	12.50
18 A	hard	12.50
84 M		5.50
85 M		12.00
197 M		12.00
245 M		2.50
36	dark	12.50
	Slate Gray	
122		12.50

GREENS

	Apple Green	
161		2.00
33 H		1.75
361 M		1.75
767 D		2.00
	Banding Green	
33		2.00
165 M		2.00

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
143 M		$2.00
174	(Matt Color)	2.00
72 M		2.00
	Meissen Banding Green	
241 M		2.50
	Black Green	
450 M		2.00
529 M		2.00
579 D		2.50
719 D		2.50
	Blue Green	
13 A	hard	2.50
13 B	soft	2.50
134		2.50
180 M		2.50
276 M		2.50
311 M	soft	2.50
115	deep	2.50
64 M	deep	2.50
517 M		2.50
116	light	2.50
159		2.00
137 M		2.50
250 M		3.00
	Deep Blue Green	
565 D		2.50
	Matt Blue Green	
238		2.50
	Bronze Green	
50	(Florentine Green)	2.50
119 M		2.50
101 M		2.50
96 M		2.50
	Brown Green	
564 D		2.50
683 M		2.00
749 D	F	2.50

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Celadon Green	
38		$1.75
652 D		2.00
	Chrome Green	
49	for painting	2.00
917 D		2.00
	Coalport Green	
644 D		2.00
	Dark Green	
661 D		2.25
662 D		2.25
141 M		2.50
181 M		2.50
249 M		2.25
191 M	for printing	2.50
321 M		2.00
527 D		2.50
	Eagle Green	
532 D		2.50
	Electric Green	
554 D		2.25
	Emerald Green	
605 M		2.50
622 D		2.00
650 D		2.50
	Empire Green	
828 D		2.00
	Florentine Green	
84		2.00
844 D		2.50
	Foliage Green	
440 M		2.00
666 M		2.00
684 M		2.00
	Frankfort Green	
208 M		2.50
209 M		2.50

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	French Green	
231		$2.50
550 D		2.50
672 M		2.00
	Grass Green	
31		2.50
	Gray Green	
531 M		4.50
629 M		1.50
	Green	
78 M	neutral	2.00
88 M		2.50
33 M		1.75
330 M		2.00
344 M		1.25
453 M		1.75
528 M		3.00
618 M		1.75
	Light Green	
142 M		2.50
161 M		2.50
	Meadowgreen	
171	(May Green)	2.00
557 D		2.25
845 D		2.50
915 D		2.00
	Moss Green	
4		2.00
4 B	soft	1.75
843 D		1.75
	Myrtle Green	
280 P		2.50
539 D	dark	2.50
	Napoleon Green	
846 D		2.50
	New Green	
829 D		2.25
	Nuremberg Green	
239 M		2.00

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Olive Green	
228 M		$1.75
133		1.75
178	(Matt Color)	1.75
230		2.00
48	for painting and grounds	2.00
244		2.50
58	(Faulgrün)	2.00
505 M		1.75
543 M		2.00
549 M		1.75
550 M		1.50
576 D		2.00
592 D		2.00
629 D		2.00
688 D	for printing	2.00
826 D		1.75
	Palm Green	
606 M		2.00
660 M		2.00
	Peacock Green	
169		2.00
288 M		3.25
	Russian Green	
265 M		2.50
116 M	for printing and grounds	2.50
559 D		2.50
548 D		4.00
847 D		2.50
	Sap Green	
25 M		2.00
916 D		2.00
	Sepia Green	
274 M		2.50
185 M		2.00
	Sevres Green	
848 D		2.50
	Shading Green	
57		2.50

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Water Green	
19		$1.50
47 M		1.50
144 M		2.00
193 M		2.00
194 M		2.00
278 M		2.00
255 M		2.00
	Yellow Green	
25		2.00
71 M		2.00
176	(Matt Color)	2.00
555 D		2.50
610 M		2.50
657 M		1.75
668 M		2.00
591 M		2.50
738 D		2.50
782 D	F	2.50
914 D		2.00

LILACS

	Lilac	
60		5.00
147		4.00
772 D		4.50
	Dark Lilac	
771 D		5.00
661 M		8.00

MAROONS

	Maroon	
9	(Dark Purple), soft for lower temperature	12.00
9 A	(Dark Purple), for printing for higher temperature	15.00
9 B	(Dark Purple), for glass	12.00
503 M	(Dark Purple)	15.00
512		18.75
513		15.00
516	for glass	15.75
556 D		25.00
558 D		25.00
349 M		10.00

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
548 M		$15.00
84 T		12.00
790		20.00
828		15.00
683 D	for printing and tinting	10.00
913 D		12.50
950		15.00
961		10.00
978		20.00
1070		17.00

PINKS

Pink

358 M		3.25

Salmon Pink

663 D		2.00

Strong Pink

552 D		5.00

PURPLES

American Beauty

660 D		12.00

Carmine Purple

496 M		3.00
500 M		4.00
582 M		5.00

Crimson Purple

658 D		15.00

Dark Purple

681 M		11.50

Gold Purple

75		5.00
75 A	hard	6.25

Liquid Purple

	per kilo,	65.00

Printing Purple

541 D		6.00

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Purple	
14 K	(Staffirpurpur) for lower temperature	$9.50
840 D		5.00
849 D		5.00
	Rose Purple	
11		4.00
11 A	hard	5.00
8 K		6.25
3 K		4.00
25 K		9.00
499 M		4.50
	Royal Purple	
561 D		12.00
	Ruby Purple	
659 D		20.00

RED, SALMONS, ETC.

	Brilliant Red	
210 M	(Rouge Brilliant)	2.00
	Blood Red	
724 D		3.00
750 D		3.00
	Brown Red	
220 M		2.00
	Capucine Red	
659 M		1.50
	Carnation Red	
170	(Mundrot)	1.50
831 D		2.50
	Cheek Red	
78	(Brown-Red, Wangenrot)	3.75
97 M	(Wangenrot)	4.50
216 M	(Wangenrot)	4.00
221 M	(Wangenrot)	4.00
557 M	(Wangenrot)	1.75
	Cherry Red	
49 M		5.50
253 M		2.50
153		1.50
322 M		1.25

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Coral Red	
108		$1.25
10		1.25
10 A	hard	1.25
10 B	soft for glass	1.25
10 H		1.25
74 M		1.25
79 M		1.25
173 M		1.25
252 M		1.25
231 M		1.25
102	deep	1.25
	Dark Red	
42	for painting and grounds	1.50
	Flesh Red or Salmon	
260 M		2.00
261 M		2.00
262 M		2.00
15		1.50
15 M	very soft	1.50
77	II	1.50
195 M	for grounds	2.50
317 M		3.00
327 M		2.25
333 M		3.50
328 M		2.50
521 M		5.00
558 M		1.75
	Granat Red	
154		3.00
	Mars Red	
155		4.00
	Orange	
126		1.50
40 M		1.50
87 M		1.50
68 M		1.50
17	for painting	1.25
727 D	(Massey's Best)	1.75

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Persian Red	
207 M	(Blood Red)	$2.05
	Pompadour Red	
258 M		2.00
412 M		2.00
420 M		3.50
523 M		3.50
524 M		4.00
582 D		2.00
55		5.75
86 M		7.00
48 M		5.75
247 M		2.00
257 M		2.00
	Printing Red	
565 M		1.50
566 M		1.50
	Red	
123		1.50
124		1.25
56 M		1.75
43	for painting and grounds	1.50
143		1.50
150		1.50
345 M		1.25
620 M		2.00
919 D		1.75
	Salmon	
666 D		2.00
	Salmon Pink	
663 D		2.00
	Shading Red	
242 M		2.00
	Tile Red	
30		1.50
46 M		1.50
	Vermilion	
648 M		2.00

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Yellow Red	
125		$1.50
157 M		1.50
115 M		1.50

ROSES

	Rose	
12	for grounds	3.00
12 B	for grounds, soft	4.50
19 K		3.00
21 K		3.00
2 K	for grounds	2.50
357 M		3.00
563 D		4.00
654 D		4.00
657 D		4.50
938		4.00
981 A		4.00

RUBYS

	Ruby	
110 D		25.00
505		20.00
568 D	soft	18.00
962 D		30.00
	Ruby Purple	
659 D		20.00

TURQUOISE

	Frankfort Turquoise	
255 M		2.00
	Matt Turquoise	
239		2.50
640 M		2.50
	Turquoise	
142		2.00
145		2.00
158		2.50
256 M	for grounds	2.00

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Turquoise Blue	
130		$2.00
581 D		2.00
282 P		2.00
34		2.00
63	I. (Pencil Blue)	2.00
72	II.	2.00
192 M		2.00
202 M		2.00
203 M	corresponding with Meissen Turquoise Blue	2.00
203 P	Meissen soft	2.00
	Turquoise Green	
152 M		2.50
214 M		2.50
229 M		2.00
591 D		2.50

VIOLETS

	Blue Violet	
510		10.00
	Iron Violet	
51		1.25
100 M		1.25
285 M		1.25
	Light Violet	
97		6.25
	Purple Violet	
40		12.00
515 M		10.00
	Shading Violet	
132		11.00
624 M		12.00
	Violet	
331 M		4.00
16		3.75
562 D		7.00
567 D		4.00

WHITES

	Chinese White	
71		1.25

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.	Enamel White	Price Per lb.
70		$1.25
94	II.	1.25
243 M		1.25
	Matt White	
647 M		1.25
609 M		1.25
560 D	Enamel.	1.00
639 M		1.50
	White	
222 M		2.00
237 M		1.25
263 M	for glass.	1.25
246 M	for glass.	1.50
350 M		1.25
364 M		1.25
342 M		1.25
403 M		1.00
428 M		1.25
429 M		1.25
834		1.25

YELLOWS

	Albert Yellow	
129	Light.	1.75
664 D		1.75
580 D		1.75
730 D		1.75
757 D		2.00
	Best Yellow	
129 P		1.75
	Brown Yellow	
32		1.50
127	(Blond).	1.25
	Canary Yellow	
607 M		2.50
	Corn Yellow	
234 M		2.00

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Dark Yellow	
63 M		$1.50
26		1.50
686 D		1.75
	Egg Yellow	
206 M		1.75
23	for painting and grounds	1.50
121	for painting and grounds	1.50
961 D		3.50
	French Yellow	
52 M		1.75
56	for painting and grounds	1.50
128		1.50
	Gold Yellow	
86		1.50
177	(Matt Color)	1.75
570 D		1.75
	Green Yellow	
27		1.25
	Ivory	
325 M		1.25
295 M		1.25
218 M	Yellow	2.00
	Ivory Enamel	
225 M		1.50
254 M		1.50
	Ivory Yellow	
675 D		1.75
796 D		1.75
	Lemon Yellow	
65 M		1.25
735 D		2.00
	Matt Lemon Yellow	
235		1.50
234		1.25
	Light Yellow	
153 M		1.25
104 M		1.25
148		1.25
108 M		1.25

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) COLORS—Continued

No.		Price Per lb.
	Matt Yellow	
217 M		$1.50
146		1.25
	Ochre Yellow	
612 M		2.00
	Oriental Yellow	
898 D		1.25
	Relief Yellow	
66 M	(Aufsatzgelb)	1.25
109 M		2.00
230 M		2.00
212 M		1.75
	Sulphur Yellow	
39	for painting and grounds	1.50
	Yellow	
5		1.50
264 M		2.00
267 M		1.25
343 M		1.25
326 M	light (Créme)	1.25
611 M	hard (Créme)	1.75
628 M		1.25
627 D		1.50

Any color not in this list will be made to order, to meet special requirements. We solicit your correspondence.

Discounts allowed for larger quantities

Matt (OR SATIN FINISH) Overglaze Colors

To be fired 740° C=1364° F. Cone 017

No.		Price Per lb.
	BLACK	
785 D	Black	$2.00
935 D	Black	2.00
	BLUE	
924 D	Blue	1.75
939 D	Blue	2.00
950 D	Blue	2.00
903 D	Blue	1.80
969 D	Celestial Blue	2.00
970 D	Ultramarine Blue	2.00
972 D	Peacock Blue	2.00
	BROWN	
712 D	Brown	2.00
927 D	Brown	1.75
933 D	Meissen Brown	1.75
941 D	Dark Brown	1.80
943 D	French Brown	1.80
954 D	Meissen Brown	1.75
	GRAY	
937 D	Gray	1.75
948 D	Gold Gray	1.80
	GREEN	
713 D	Water Green	2.25
901 D	Blue Green	2.00
902 D	Light Green	2.00
923 D	Florentine Green	1.75
931 D	Green	1.75
932 D	Russian Green	1.75
934 D	Dark Green	1.75
936 D	Yellow Green	1.80
947 D	Napoleon Green	1.90
952 D	Yellow Green	2.00
953 D	Black Green	1.75
	MAROON	
930 D	Maroon	5.00
940 D	Maroon	12.00

Made in America—Prices subject to change

MATT (OR SATIN FINISH) OVERGLAZE COLORS—Continued

No.		Price Per lb.
	RED	
906 D	Salmon	$1.50
925 D	Orange	1.50
945 D	Orange	1.75
946 D	Blood Red	1.75
	ROSE	
929 D	Rose	2.50
	VIOLET	
928 D	Violet	8.50
949 D	Violet	9.00
951 D	Violet	10.00
	WHITE	
560 D	White	1.25
647 M	White	1.25
609 M	White	1.25
803 D	White Vellum	1.00
922 D	White	1.00
938 D	White	1.00
	YELLOW	
804 D	Ivory	1.00
904 D	Yellow	1.50
905 D	Ivory	1.50
926 D	Yellow	1.25
944 D	Yellow	1.25
955 D	Satin Ivory	1.00
971 D	Dark Yellow	1.50

Enamel (Overglaze) Printing Colors

To be fired at 740° C=1364° F. Cone 017

No.		Price Per lb.
	BLACK	
154 M	Black	$1.50
273 M	Blueblack	2.50
11 D	Brownblack	1.75
	BLUE	
32 D	Banding Blue	2.00
31 D	Celestial Blue	2.00
30 D	Dark Blue	2.00
42 D	Dark Blue	2.00
461 M	Delftblue	2.00
25 D	Greenblue	2.00
40 D	New Blue	2.25
544 M	Pigeon Blue	6.00
18 D	Printing Blue	2.00
	BROWN	
13 D	Brown	1.50
6 D	Chestnut Brown	1.50
588 M	Chestnut Brown	1.75
545 M	Chestnut Brown	1.50
703 M	Dark Brown	1.50
704 M	Dark Brown	1.50
705 M	Dark Brown	1.50
4 D	Lightbrown	1.50
1 D	Printing Brown	1.50
2 D	Printing Brown	1.50
5 D	Printing Brown	1.50
167	Violet Brown	7.50
14 D	Violet Brown	1.50
3 D	Woodbrown	1.50
	GRAY	
15 D	Blue Gray	1.75
17 D	Blue Gray	1.75
7 D	Dark Gray	1.75
518 M	Dark Gray	2.00
34 D	Green Gray	1.75
33 D	Silvergray	1.75

Made in America—Prices subject to change

ENAMEL (OVERGLAZE) PRINTING COLORS—Continued

No.		Price Per lb.
	GREEN	
19 D	Bluegreen	$2.25
23 D	Bluegreen	2.25
21 D	Chromegreen	1.50
20 D	Darkgreen	2.00
321 M	Darkgreen	2.00
22 D	Mossgreen	2.00
16 M	Olive Green	1.75
48	Olive Green	2.00
26 D	Russian Green	2.00
8 D	Seladongreen	1.75
	POMPADOUR	
12 D	Pompadour	1.50
27 D	Pompadour	1.50
	PURPLE	
9a	Dark Purple	15.00
35 D	Dark Purple	12.50
	RED	
29 D	Brown Red	2.50
37 D	Light Red	1.50
28 D	Printing Red	1.50
565 M	Red	1.50
566 M	Red	1.50
	RUBY	
548 M	Ruby	15.00
	VIOLET	
100 M	Iron Violet	1.50
36 D	Dark Violet	14.00
39 D	Shading Violet	10.00
	YELLOW	
41 D	Dark Yellow	1.75

Fluxes

No.		Price Per lb.
995	Enamel A IV., very soft, to be mixed with oxides for colored enamel and Bright Gold decorations upon metals	$1.00
993	Enamel B II., for glass decorations	1.00
997	Enamel C VI., for glass decorations, a little harder than 993	1.00
59 M	Glass Enamel I.	1.00
60 M	Glass Enamel II.	1.00
246 M	Glass Enamel III.	1.00
987	Muffle Enamel White	1.00
989	Muffle Enamel White, for glass	1.00
103 M	Muffle Enamel White Yellow	1.00
160 M	Orange Enamel	1.25
998	Tin Enamel VII., for glass	1.00
61 M	Coral Red Flux I.	1.00
994	Coral Red Flux III., suitable for Bright Gold decorations on Majolica and terra cotta	1.00
992	Crystal Flux Ia., for all glass colors	1.00
	Flux P, very soft, especially adapted for softening all glass colors	1.00
8	Flux	1.15
496 M	Flux, for Carmine	1.50
53	Flux	1.25
10	Flux, softest	1.25
999	Flux, for Pinks, etc., N	1.00
845	Flux, for Blacks, G	1.00
385	Flux O	1.00
850	Flux, for Brown colors	1.00
851	Flux, for Blue colors	1.00
848	Flux Z	1.00
990	General Flux I., for thinning colors	1.00
996	General Flux V., (Fondant Général)	1.00
849	General Flux VIII.	1.00
82 M	Patina Flux, for metals	1.00
	Soft Transparent Flux	1.50
186	Special Soft Flux, for mixing with colors	1.00
799 D	Special Soft Flux	1.00
729 D	Ivory Glaze (envelope Flux), dark	1.25
737 D	Ivory Glaze (envelope Flux), light	1.25
892 D	Ivory Glaze (envelope Flux)	1.25

Made in America—Prices subject to change

No.	FLUXES—Continued	Price Per lb.
286 M	Paste for raised Gold	$1.25
846	Paste for rough grounding Bright Gold White, for glass	1.25
847	Paste for rough grounding Bright Gold Yellow, for china	1.25
150 M	Paste for raised Gold	1.25

We recommend the following Fluxes to be used with our:

Blacks	53 Flux
Blues	Soft Transparent Flux
	53 Flux
	993 Enamel B
Browns	992 Crystal Flux
	Flux for Brown
	993 Enamel B
	Flux P
Grays	993 Enamel B
	Soft Transparent Flux
Greens	993 Enamel B
	Flux P
	10 Flux
Pinks, Purples	186 Flux for Carmines
	53 Flux (especially for soft Maroons)
	10 Flux
Reds	992 Crystal Flux
	993 Enamel B
	Flux P
Whites	992 Crystal Flux
	993 Enamel B
Yellows	992 Crystal Flux
	993 Enamel B

Underglaze Colors

Underglaze Colors are also used as Body and Glaze Stains for china, stoneware, terra cotta, brick, enameled steel and ironware. Special shades or colors made upon request and samples cheerfully submitted.

The maturing point of the glaze used for covering of these colors is the governing factor of the temperatures at which the same may be fired. Under a suitable glaze these colors may be used up to a temperature of Cone 8 (1290° C or 2354° F).

Special discounts allowed for larger quantities

BLACKS

No.		Price Per lb.
	Black	
91		$1.80
92	extra	2.00
384 M		1.40
686 M		2.50
1233		2.50
	Blue Black	
310		2.20
	Neutral	
389		2.25

BLUES

	Blue	
149 M		1.40
956 D		2.00
351 M	(Weiden Blau)	2.00
	Black Blue	
390		2.20
	Berlin Blue	
419 M		3.00
	Canton Blue	
130 M		2.25
	Chinese Blue	
95		1.80
	Dark Blue	
65	(Flowing Blue)	2.50
65 A	for banding	2.80

Made in America—Prices subject to change

UNDERGLAZE COLORS—Continued

No.		Price Per lb.
	Dark Mazarine Blue	
479 M		$3.00
	Deep Blue	
687 D	very deep	3.20
	Delft Blue	
435 M		2.80
890 D		2.00
891 D		2.40
	Flowing Blue	
158 M		2.80
132 M		2.00
266 M		2.80
	Indian Blue	
355 M		3.00
64		2.20
	Light Blue	
160	A	1.30
156	B	1.25
391 M	for porcelain	1.70
394	extra heavy for printing	1.50
	Matt Blue	
307 M		1.80
308 M		1.80
125 M		1.40
	Peacock Blue	
393		1.80
	Royal Blue	
95 A		1.60
	Turquoise Blue	
157		1.25
	Turquoise	
86 A		2.00

BROWNS

	Black Brown	
171 M		1.10
89 M		1.30
	Brown	
112 M		1.35
113 M		1.30
492 M		1.35
572 D		1.75
734 M		2.00

Made in America—Prices subject to change

UNDERGLAZE COLORS—Continued

No.		Price Per lb.
	Chocolate Brown	
391		$1.30
	Claret Brown	
90 M		1.50
	Coffee Brown	
100		1.20
	Dark Brown	
52		1.40
114 M		1.35
298 M		1.20
167 M		1.25
302 M		1.25
473 M		1.40
920 D		2.00
	Fawn	
577 D		1.40
	Ivory for Porcelain	
172 M		1.00
174 M		1.00
324 M		1.00
	Light Brown	
81		1.70
81 A		2.00
	Manganese Brown	
101		1.25
101 A		1.00
	Mulberry	
126 M		1.80
127 M		1.60
	Mulberry Brown	
107		1.80
176 M		2.00
178 M		1.60
365 M		1.80
	Neutral Brown	
57 M		2.25
	Red Brown	
206	(Persian Red)	1.00

Made in America—Prices subject to change

UNDERGLAZE COLORS—Continued

No.		Price Per lb.
	Sepia Brown	
392		$1.30
	Venison Brown	
147 M		1.50
393 M		1.75
	Walnut Brown	
82		1.35
82 A		1.35
	Yellow Brown	
207		2.00

GRAYS

	Gray	
99		1.60
	Gray Blue	
96	for porcelain	2.40
	Pigeon Gray	
128 M		2.25
	Gray Green	
507 M		2.00

GREENS

	Banding Green	
87		1.45
297 M	dark	1.50
309 M	light	1.40
	Black Green	
512 M		1.90
	Blue Green	
89		1.50
304 M		1.60
305 M		1.60
334 M		2.00
432 M		1.70
	Dark Green	
68		1.80
68 A		1.80
670 D		1.60
	Flowing Green	
129 M		1.75

Made in America—Prices subject to change

UNDERGLAZE COLORS—Continued

No.		Price Per lb.
	French Green	
88		$1.40
337 M		1.75
353 M	dark	2.00
354 M	light	1.60
300 M		1.60
575 D		1.80
	Grass Green	
92 M		1.50
138 M		1.60
146 M		1.50
303 M		1.50
	Green	
110 M		1.60
111 M		1.60
921 D		2.00
	Irish Green	
821 D		2.00
822 D		2.00
	Light Green	
85		1.00
85 A		1.00
246		1.20
624 M		1.20
315 M		1.30
469 M		1.35
486 M		1.40
	Moss Green	
35		1.50
	Olive Green	
35 A		1.50
35 B		2.00
	Russian Green	
395	(Black Green)	1.80
	Victoria Green	
379 M		1.50
968 D		2.00
	Yellow Green	
306 M		1.50

Made in America—Prices subject to change

UNDERGLAZE COLORS—Continued

LILACS

No.	Lilac	Price Per lb.
2		$2.75
66 A		2.40
140		2.00
475 M		2.75

REDS

Cardinal Red

168 M		2.40

Crimson

533 M		2.25

Dark Red

208	(Pink)	2.00
368 M	(Pink)	2.00
370 M	(Pink)	1.80
371 M	(Pink)	1.80

Flesh Color

397		2.00

Italian Red

94 M		2.00
296 M		1.80

Maroon Pink

477 M		2.40

Orange

299 M		1.60
95 M		1.80

Pink

69 A		2.25
166 M		2.50
378 M		2.40
382 M	(Rose)	2.00
476 M		2.40
487 M		2.00

Pink Oxide

		2.00

Purple

131 M		2.40
169 M		2.40

UNDERGLAZE COLORS—Continued

No.	Red	Price Per lb
314 M		$1.80
474 M		2.40
69	(Pink)	2.00
	Salmon Color	
417 M		2.00

VIOLETS

	Violet	
66	(Unique)	2.75
152		2.40
600 M		2.40
	Purple Violet	
59		2.25
	Mauve	
478 M		2.75

WHITES

	White	
90		1.00
508 M		2.40

YELLOWS

	Dark Yellow	
67		1.80
83		1.60
	Gold Yellow	
399		1.60
	Light Yellow	
106		1.40
93 M		1.40
	Straw Yellow	
398		1.60
	Titan Yellow	
396		1.50

Made in America—Prices subject to change

UNDERGLAZE COLORS—Continued

No.		Price Per lb.
	Titan Orange	
396 A		$1.60
	Yellow	
301 M		1.60

GLAZE FOR UNDERGLAZE COLORS

Transparent Glaze	1.00

Matures at 1050° C=1922° F. Cone 05

Liquid Underglaze Colors

For light colored grounds and banding on china; also used for porcelain.

No.		Price Per lb.
839	Blue Violet	$1.75
835	Brown	1.00
832	Dark Blue	1.50
827	Dark Gray	9.25
830	Dove Gray	1.25
837	Green	1.00
842	Ivory	1.75
840	Red Violet	2.25
823	Rose (dark)	3.50
825	Rose (light)	2.50
829	Silver Gray	4.25
849	Yellow (dark)	2.50
844	Yellow (light)	1.60

Vitrifiable Enamels

For Cast and Sheet-Iron or Steel, also Gold, Silver and Copper.

Temperatures of Muffle Kilns used for firing of Enamels range for First or Slush Coat from 1500° to 1800° F. Second and Third Coats from 1200° to 1500° F according to the fusibility of the enamel.

	Price Per lb.
Dark Blue Enamel	$1.20
Fire Red Enamel, (Only for Enamels free from Lead)	2.50
Fire Red Enamel No. 1, (Only for Enamels free from Lead)	2.50
White Enamel for cast iron (2nd coat)	1.25
White Enamel for sheet iron (2nd coat)	1.25
Enamel Base for making colored enamel	1.00
First Coating for cast iron	1.00
First Coating for sheet iron and steel	1.00

Colored Enamels: All colors.

For Oxides to produce colored enamels,
See "Bodies and Oxides," pages 65-69.

For Enamel Colors for decorating enameled metalware,
See "Overglaze Colors," pages 11-40.

For Majolica Imitation on Art Casting we furnish: Enamels, Colors and Fluxes.

Made in America—Prices subject to change

Glass Colors

To be fired at a temperature not exceeding 590° C=1094° F. Cone 022.

BLACKS

No.		Price Per lb.
	Black	
154 M		$1.75
6 B		1.50
279 M		2.00
704 D		1.75
628 D		1.75
	Lettering Black	
196 M		1.75
	Shining Black	
703 D		2.25
	Sup Deep Black	
702 D		2.00

BLUES

	Banding Blue	
1		2.00
313 M	soft	2.00
	Blue	
616 D		2.00
699 D		2.50
	Celestial Blue	
2 B	for grounds	2.00
119	very soft	2.00
119 B	extra soft for grounds	2.00
543 D		1.75
529 D		2.00
700 D		2.00
	Dark Blue	
24	very deep	2.00
	Glass Blue	
51 M		1.75
	Peacock Blue	
287 M		3.25
551 D		2.50
973 D		2.50

Made in America—Prices subject to change

GLASS COLORS—Continued

No.		Price Per lb.
	Printing Blue	
338 M		$3.00
	Turquoise Blue	
130		2.50
203 P		2.50
707 D		2.00
	Ultramarine Blue	
61		2.50
	Coarse Blue Enamel	
761 D		1.50

BROWNS

	Brown	
13		1.50
235 M		1.75
	Brunswick Brown	
189 M		1.50
553 D	dark	2.00
	Chamois Brown	
706 D		2.00
	Chestnut Brown	
215 M		1.50
	Dark Brown	
215 P		1.50
23 GC		1.50
695 D	transparent	2.50
	Hair Brown	
694 D		2.50
	Landscape Brown	
281 P		2.00
	Paris Brown	
46		1.50
	Photo Brown	
139 M	light	1.50
	Red Brown	
79		1.50
80		1.50

GLASS COLORS—Continued

No.		Price Per lb.
	Sepia Brown	
105 M		$1.50
	Van Dyke Brown	
107 M		1.50
	Yellow Brown	
248 M		1.75
41		1.50
705 D		2.25

CARMINES

	Carmine	
30 Gc		5.00
	Gold Carmine	
26 Gc		6.00

GRAYS

	Green Gray	
165		12.50
	Neutral Gray	
284 M		2.50
	Silver Gray	
18 B		12.50
84 M		5.50
85 M		12.50

GREENS

	Apple Green	
161		2.00
361 M		1.75
	Black Green	
450 M		2.50
625 D		2.00
	Blue Green	
13 B		2.50
115	dark	2.50
64 M	dark	2.50
	Deep Blue Green	
565 D		2.50

Made in America—Prices subject to change

GLASS COLORS—Continued

No.		Price Per lb.
	Bronze Green	
50		$2.50
	Brown Green	
564 D		2.50
	Dark Green	
249 M		2.25
141 M		2.50
527 D		2.50
728 D	transparent	2.00
	Eagle Green	
554 D		2.50
	Electric Green	
532 D		2.50
	Emerald Green	
788 D		2.50
	French Green	
231		2.50
	Foliage Green	
440 M		2.00
	Grass Green	
31		2.50
	Green	
701 D		2.50
	Moss Green	
4 B		2.00
4	soft	1.75
	Myrtle Green	
280 P		2.50
539 D	dark	2.50
	Olive Green	
228 M		1.75
230	very dark	2.00
48		2.00
	Soft Olive Green	
696 D		2.25
	Russian Green	
265 M		2.50
548 D		4.00

Made in America—Prices subject to change

GLASS COLORS—Continued

No.		Price Per lb.
	Sap Green	
25 M		$2.00
	Sea Green	
733 D		2.00
	Shading Green	
57		2.50
116 M	(Russian)	2.50
734 D		2.50
	Water Green	
278 M		2.00
19		1.50
193 M		2.00
144 M		2.00
	Turquoise Green	
152 M		2.50
	Yellow Green	
555 D		2.50
691 D	for grounds	2.50

MAROONS

	Maroon	
25 GC		7.50

PURPLES

	Glass Purple	
25 K		9.00
	Liquid Purple	
	per kilo,	75.00
	Maroon Purple	
20 GC		8.00
	Purple	
28 GC		7.00
	Royal Purple	
561 D		15.00
	Ruby Purple	
22 GC		10.00

Made in America—Prices subject to change

GLASS COLORS—Continued

REDS

No.		Price Per lb.
	Brilliant Red	
210 M		$2.00
	Carnation Red	
626 D		1.75
	Cheek Red	
78		3.75
	Cherry Red	
253 M		2.50
153		1.50
	Coral Red	
697 D		1.50
108		1.25
102		1.25
698 D		1.50
	Dark Red	
42		1.50
	Flesh Red	
77		1.50
261 M		2.50
	Orange Red	
68 M		1.50
	Persian Red	
207 M		3.00
	Pompadour Red	
48 M		5.75
55		5.75
412 M		2.00
	Red	
123		1.50
	Tomato Red	
679 D		2.25
	Yellow Red	
115 M		1.50

RUBYS

	Deep Ruby	
29 GC		12.50
609 D		12.00

Made in America—Prices subject to change

GLASS COLORS—Continued

No.	Ruby	Price Per lb.
612 D		$12.00
27 GC		13.00
568 D		15.00
678 D		15.00

VIOLETS

Blue Violet

510		10.00

Iron Violet

51		1.25

Purple Violet

12 GC		12.50

Shading Violet

132		11.00

WHITES

White

263 M		1.25
222 M		2.00

White Opaque Enamel

	I.	1.00
	II.	2.00
998 D	coarse	1.50

Soft White Enamel

614 D		1.00
895 D		1.50

YELLOWS

Best Yellow

129 P		2.00

Canary Yellow

709 D		2.00

Dark Yellow

63 M		1.50

Deep Yellow

710 D		2.00

Egg Yellow

206 M		1.75

French Yellow

128		1.50

Made in America—Prices subject to change

GLASS COLORS—Continued

No.		Price Per lb.
	Gold Yellow	
570 D		$1.75
	Golden Silver Stain	
		10.00
	Green Yellow	
27		1.25
	Silver Yellow	
708 D	transparent	2.00
	Transparent Amber Stain	
723 D		2.00
	Yellow Enamel	
636 D	coarse	1.75

FLUXES

	Carmine Flux	
496 M		1.50
	Crystal Flux	
992		1.00
	Enamel Flux	
993		1.00
	Flux	
999		1.00
82 M		1.00
186-2		1.00
10	special soft	1.25
845	for black	1.00
	P	1.00
	Coral Red Flux	
994		1.00
	Soft Flux	
53		1.25
	Soft Transparent Flux	
		1.50
	Crystal Ice	
950		1.00
1071		1.00
	Special Soft Flux	
799 D		1.00

Made in America—Prices subject to change

Majolica Colors

(Colored Glazes)
Are to be fired at 990°—1050° C=1814°—1922° F. Cone 08—05.

No.		Price Per lb.
	BLACKS	
601	Black	$1.50
605	Black Blue (neutral)	1.60
603	Neutral	1.60
	BLUES	
663	Azure Blue, transparent	1.50
701	Blue, transparent	2.00
639	Chinese Blue	1.50
635	Dark Blue (Flowing Blue)	1.75
637	Light Blue, A	1.25
638	Light Blue, B	1.25
604	Light Blue, extra strong	1.40
636	Peacock Blue	1.25
640	Royal Blue	1.50
660	Turquoise Blue	1.25
660 A	Turquoise Blue	1.25
702	Turquoise, transparent	1.50
	BROWNS	
611	Chocolate Brown	1.40
609	Coffee Brown	1.40
608	Dark Brown	1.40
662	Green Brown	1.25
622	Light Brown	1.25
610	Manganese Brown	1.25
617	Mulberry Brown	1.50
619	Persian Red (Red Brown)	1.40
615	Sepia (Black Brown)	1.40
620	Wood Brown	1.25
624	Yellow Brown	1.40
	GRAYS	
667	Gray	1.40
661	Green Gray	1.25
	GREENS	
655	Banding Green	1.40
652	Dark Green	1.40
665	French Green	1.40

Made in America—Prices subject to change

No.	MAJOLICA COLORS—Continued	Price Per lb.
711	Gamelia Green, transparent	$1.50
700	Grass Green, transparent	1.50
659	Green Glaze for stoves	1.40
714	Green, transparent	1.50
656	Light Green (Copper Green)	1.25
653	Moss Green	1.50
654	Olive Green	1.50
712	Olive Green, transparent	1.50
657	Russian Green (Black Green)	1.40
641	Turquoise	1.25
648	Yellow Green	1.25
706	Yellow Green, transparent	1.50
	PURPLES	
703	Purple, transparent	3.50
708	Dark Purple, transparent	1.50
959 D	Purple	1.40
960 D	Purple	1.40
	REDS	
647	Dark Red (Pink)	1.40
646	Flesh Red	1.40
707	Granat Red, transparent	1.50
704	Pink, transparent	2.00
645	Red (Pink)	1.40
680	Red Glaze	1.50
	VIOLETS	
644	Purple Violet	1.25
643	Violet (Unique)	1.25
713	Violet, transparent	1.50
	YELLOWS	
627	Dark Yellow	1.50
664	Gold Yellow	1.50
630	Light Yellow	1.40
705	Light Yellow, transparent	1.50
709	Ochre Yellow, transparent	1.50
710	Opal Yellow, transparent	1.50
606	Straw Yellow	1.50
629	Titan Yellow	1.75
	FLUX FOR MAJOLICA COLORS	
993	Enamel B	1.00

Made in America—Prices subject to change

Matt Glazes

Made according to formulas of Prof. Chas. F. Binns, Alfred, N. Y.
Mature at cone 04 to 02

1070°—1110° C=1958°—2030° F

No.		Price Per lb.
2015	Black	$1.25
2019	Blue	1.25
2010	Dark Blue	1.25
2008	Huckle Berry Blue	1.25
2022	Robin's Egg Blue	1.25
2003	Hickory (Cool) Brown	1.00
2011	Leopard (Dark) Brown	1.00
2006	Warm Brown	1.00
2004	Shell Gray	1.00
2012	Cool Green	1.00
2007 A	Fir Green	1.00
2018	Medium Green	1.00
2005	Moss Green	1.00
2005 A	Moss Green	1.00
2007	Sage Green	1.00
2002	Silver Green	1.00
2017	Willow Green	1.00
2016	Red	1.00
2001	White (Cream) S-296	1.00
2009	White (Cream) S-406	1.00
2014	White (Cream) S-420	1.00
2013	Tan Yellow	1.25

INSTRUCTIONS FOR USING MATT GLAZES

To secure success with matt glazes two things must be borne in mind: First, that the thicker the glaze, the better the texture; second, the glaze must be absolutely perfect, free from finger marks, etc., before burning; a matt glaze does not flow and correct its own errors as a bright glaze does. One pound of glaze will require about one pint of water to form a thick paste, and to it should be added a small quantity, about one tablespoonful to the batch of glaze, of gum tragacanth mucilage (prepared by soaking about one-half ounce of gum in about two quarts of water). The piece to be glazed should be soaked in clean water to complete saturation; the surface then wiped dry and the glaze poured over. A slight shaking will give a smooth coating, but as little of the glaze as possible is to be shaken off.

Made in America—Prices subject to change

Color Bodies and Oxides

Also used for making Colored Enamels

BODIES

No.		Price Per lb.
	Black Body	
	A	$3.50
	B	3.00
	C	1.00
	D	2.00
907 D		2.00
		2.50
	extra	4.00
	Banding Blue Body	
		2.50
	Blue Body	
58 M		2.25
179 M		3.50
319 M		3.50
	Celestial Blue Body	
		2.00
	Double strength	2.50
	Dark Blue Body	
604 M		3.50
		2.50
	Japan Blue Body	
	0, Under Glaze for Porcelain	2.00
	1, Under Glaze for Porcelain	1.80
	2, Under Glaze for Porcelain	1.60
	Chestnut Brown Body	
		2.00
	Chocolate Brown Body	
	1	1.80
	2	1.75
909 D		4.00
	Coffee Brown Body	
		1.50

Made in America—Prices subject to change

COLOR BODIES AND OXIDES—Continued

No.		Price Per lb.
	Indian Brown Body	
570 M		$1.75
	Red Brown Body	
	2	2.00
	Copper Color Body	
		2.00
	Gray Body	
		2.00
	Banding Green Body	
		3.00
	Celadon Green Body	
		3.25
	Gray Green Body	
507 M		1.60
	Moss Green Body	
		2.00
	2	2.00
	Olive Green Body	
		1.75
	Russian Green Body	
625 M		2.00
	Turquoise Green Body	
		3.00
	Victoria Green Body	
		2.50
	Yellow Green Body	
630 M		2.50
		2.50
631 M		2.75
	Ivory Body	
	2	1.50
	3	1.40
587 M		2.50
		1.50
	Dark Orange Body	
756 D		3.50

Made in America—Prices subject to change

COLOR BODIES AND OXIDES—Continued

No.		Price Per lb.
	Coral Red Body	
	.....	$1.50
	Dark Red Body	
	.....	2.00
	Fire Red Body	
	.....	6.00
1	.....	6.00
	Persian Red Body	
	.....	2.00
	Pink Body	
1	.....	7.00
	Pompadour Body	
	.....	2.00
	Purple Body for Carmine	
	.....	50.00
	Purple Body for Gold Purple	
	.....	60.00
	Purple Body for Rose and Pink	
	.....	40.00
	Schwarz Koerper	
	.....	2.50
extra	.....	4.00
	White Body	
	.....	2.50
	Egg Yellow Body	
	.....	2.00

OXIDES

	Cobalt Blue Oxide	
	.....	2.75
	Dark Blue Oxide	
	.....	4.00
	Green Blue Oxide	
	.....	2.60
	Light Blue Oxide	
	.....	2.50

Made in America—Prices subject to change

COLOR BODIES AND OXIDES—Continued

No.		Price Per lb.
	New Blue Oxide	
	.....	$3.50
	Turquoise Blue Oxide	
1	.....	2.50
	Black Brown Oxide	
	.....	1.25
	Dark Brown Oxide	
	.....	1.50
167 M	.....	1.25
	Light Brown Oxide	
	.....	2.00
75 M	.....	2.00
	Paris Brown Oxide	
	.....	2.00
	Wood Brown Oxide	
	dark	2.00
	Yellow Brown Oxide	
	.....	2.25
	Blue Green Oxide	
	.....	4.00
366 M	.....	3.00
	B	2.50
655 D	.....	3.40
2993	.....	3.25
690 D	.....	2.00
	C	3.00
807 D	.....	2.00
	Cobalt Green	
	.....	2.00
	Dark Green Oxide	
	.....	4.50
	2	3.50
872 D	A	2.50
	French Green Oxide	
571 D	.....	1.50
	Gray Green Oxide	
	.....	2.00

Made in America—Prices subject to change

COLOR BODIES AND OXIDES—Continued

No.		Price Per lb.
	Green Oxide	
	.....	$3.00
574 D	.....	2.25
	4	1.75
	Naples Yellow	
	1	2.00
	2	1.90
	Russian Green Oxide	
671 D	.....	2.00
	Schwarzoxyd	
	.....	2.50
	extra	4.00
	Signal Green Oxide	
	.....	3.00
	Turquoise Oxide	
667 D	.....	3.00
	Yellow Oxide	
	.....	2.00
	Dark Yellow Oxide	
	.....	2.00
	Vermilion Red Oxide	
	5	5.00

Made in America—Prices subject to change

Liquid Lustre Colors

To be fired at 710°—740° C=1310°—1364° F. Cone 018—017

No.		Price per Ko.
31	Aluminum Lustre	$12.00
15	Black	50.00
38	Blue Lustre	45.00
102	Blue Lustre	40.00
38 B	Dark Blue	45.00
33	Dark Blue for glass I.	40.00
33	Dark Blue for glass II.	20.00
103	Gray Blue	30.00
104	Iridescent Grayblue	20.00
32	Light Blue for glass	35.00
19	Steel Blue	60.00
106	Turquoise Blue	25.00
20	Copper Bronze	90.00
28	Gold Bronze Lustre I.	130.00
28	Gold Bronze Lustre II.	130.00
28	Gold Bronze Lustre III.	130.00
30	Green Gold Bronze I.	130.00
30	Green Gold Bronze II.	130.00
30	Green Gold Bronze III.	130.00
29	Red Gold Bronze I.	68.00
29	Red Gold Bronze II.	68.00
23	Green Bronze I.	20.00
24	Green Bronze II.	30.00
8	Brown	17.00
136	Dark Brown	20.00
139	Gray Brown	30.00
107	Orange Brown	11.00
112	Orange Brown	11.00
49	Dark Yellow Brown S.	11.00
114	Carmine	60.00
115	Carmine	62.00
21	Chatoyant	70.00
110	Gold Lustre	25.00
13	Gold Lustre I.	36.00
13 A	Gold Lustre II.	95.00
14	Covering for Gold Lustre 13	12.00
1	Gray I.	12.00
2	Gray II.	14.00

Made in America—Prices subject to change

LIQUID LUSTRE COLORS—Continued

No.		Price per Ko.
3	Blue Gray	$16.00
138	Platin Gray	50.00
2 A	Smoke Gray for glass	11.00
135	Yellow Gray	20.00
35	Blue Green for glass I.	20.00
35	Blue Green II.	20.00
121	Blue Green	30.00
17	Dark Green	11.00
40	Dark Green	40.00
52	Dark Green S	20.00
134	Dark Green	35.00
41	Iridescent Green	12.00
34	Lap Green for glass I.	30.00
34	Lap Green for glass II.	35.00
16	Light Green	11.00
51	Light Green S	15.00
43	May Green	45.00
116	May Green	25.00
17 A	Olive Green	12.00
143	Russian Green	35.00
140	Sepia Green	35.00
141	Yellow Green	30.00
44	Heliotrope	30.00
128	Maroon	60.00
48	Orange S	12.00
5	Orange I.	10.00
6	Orange II.	10.00
7	Orange III.	11.00
7 A	Orange IV.	11.00
7 B	Orange V.	6.50
111	Orange	11.00
26	Mother Pearl	11.00
39	Mother Pearl (Iridescent)	12.50
39 I	Mother Pearl (Iridescent)	12.50
39 B	Mother Pearl (Iridescent)	16.50
9	Pink I.	20.00
9 A	Pink I. for glass	20.00
9 B	Pink II.	16.00
9	Pink K	12.00
50	Pink (Gold Lustre) S	25.00
108	Pink	16.00
109	Pink	12.00

LIQUID LUSTRE COLORS—Continued

No.		Price per Ko.
131	Pink	$45.00
25	Platinum Lustre	150.00
133	Purple	40.00
11	Dark Purple	40.00
54	Liquid Purple	75.00
54 B	Liquid Purple (No. 132)	75.00
10	Red	25.00
10 A	Red for glass	22.00
37	Red for glass	25.00
36	Dark Red for glass	20.00
124	Heliotrope Rose	40.00
22	Iridescent Rose	60.00
27	Silver Lustre	150.00
12	Violet I.	38.00
12 A	Violet II.	25.00
129	Blue Violet	50.00
123	Dark Violet	30.00
53	Gold Violet S	45.00
130	Redviolet	45.00
4	Yellow	11.00
4 A	Yellow	11.00
47	Dark Yellow S	12.00
46	Light Yellow S	12.00
42	Iridescent Yellow	25.00
18	White I.	10.00
18 A	White II.	6.50
45	Satin White S	15.00
55	Essence for thinning Lustres	5.00

Chemical
Metal Pyrometers

Special Price List

Upon Application for

Electric and Gas Furnaces

For Technical Purposes and Melting of

Metals & Glazes

Orders taken for Importation

Chemicals

for Pottery, Glass, Enameled Ware, Terra Cotta, Brick, Etc., Industries.

RHCCO
A1
TRADE MARK

"HIGHEST GRADE MATERIALS"

Prices of these Chemicals depend upon quantities ordered at one time and are subject to fluctuations.

Alumina, Oxide, Hydrate
Alumina, Sulphate
Ammonia, Carbonate, lumps
Ammonia, Carbonate, powdered
Antimony Oxide, White
Antimony Oxide, Black
Antimony Sulphuret
Antimony Needle Powder
Antimony Glass Scales
Antimony Regulus
Antimony Diaphoretic
Arsenic, White, powdered
Barytes, Carbonate. Write for Circular
Barytes, Nitrate
Barytes, Fluoride
Barytes, Sulphate

CHEMICALS—Continued

Bismuth, Oxide Hydrate

Bismuth, Subnitrate

Blue Calx.

Bone Ash

Boracic Acid, Flaky

Boracic, Refined, Crystals

Boracic, Refined, Granulated

Boracic, Refined, Powder

Borax, Refined, Lumps

Borax, Refined, Granulated

Borax, Refined, Powder

Borax, Calcined

Borax, Glass

Cadmium Sulphide

Chrome Yellow

Chrome Oxide, Green

Clay, Albany Slip

Clay, Ball

Clay, China

Clay, China, Imported

Clay, China, English

Clay, China, Domestic

Clay, F

Clay, Fire

Clay, P

Clay, Pipe

Clay, Red

Clay, V

Clay, White

Clay, Yellow

CHEMICALS—Continued

Cobalt Oxide, Black
Cobalt Oxide, F. K. O.
Cobalt Carbonate
Cobalt Nitrate
Cobalt Phosphate
Cobalt Sulphate. See Page 93
Copper Oxide, Black
Copper Oxide, Red
Copper Carbonate
Copper Sulphate
Copper Scales
Copperas
Cornwall Stone, Wet Ground
Cornwall Stone, Dry Ground
Crocus Martis
Enamel Soda, Imported
Enamel Soda, Domestic
Enamel Lack, Dark Blue
Enamel Lack, Light Blue
Enamel Lack, Gray
Enamel Lack, Brown
Enamel Lack, White
Enamel Lack, Black
Epsom Salts
Feldspar, Prime Norwegian
Feldspar, Domestic
Flint, German
Flint, Domestic

CHEMICALS—Continued

Fluorspar, Mb.

Fluorspar, S. I.

Glass, Powdered, Flint

Glass, Powdered, Lead

Green Sheen

Gypsum, Powdered

Hirschorn Salt

Iron Oxide, Red, A1

Iron Oxide, Red, B

Iron Oxide, Red, C

Iron Oxide, Red, D

Iron Oxide, Red body

Iron Oxide, Black

Iron Oxide, Brown

Iron Oxide, Violet

Iron Sulphate

Iron Chromate

Iron Scales

Iridium Oxide

Kalkspar, Imported

Kalkspar, Domestic

Kaoline

Kryolith, powdered

Lead Chromate

Lead, Red

Lead, White

Leukonin

CHEMICALS—Continued

Lime Carbonate

Litharge

Magnesia Carbonate, light, pure

Magnesia Carbonate, Natural

Magnesia, Calcined

Magnesia Oxide

Magnesia Sulphate

Manganese Oxide Powder, 80–90%

Manganese Oxide, Granulated, 85–90%

Manganese Oxide, other grades upon application

Manganese, Borate

Manganese Oxide, Brown

Manganese Recovered

Manganese Carbonate

Marble Dust

Minium

Mennige

Nickel Oxide, Green

Nickel Oxide, Black

Nickel Oxide, Gray

Nickel Carbonate

Nickel Nitrate

Nickel Chloride

Nickel Sulphate

Nigrane

Nitre, Crystals

Nitre, Powder

Orange Mineral

Opaline

Paris White

Metal Pyrometer

CHEMICALS—Continued

Pearl Ash, Calcined

Pearl Ash, Hydrated

Pebbles

Powder Blue

Potters Blue

Potash Carbonate, calcined, 98–99%

Potash Carbonate, calcined, 96–98%

Potash Carbonate, calcined, 80–85%

Potash Carbonate, hydrated, 80–85%

Potash Nitrate Crystals

Potash Nitrate, Granulated

Potash Nitrate, Powder

Purple Cassius

Putty Powder

Putty Powder

Quartz, Prime German

Quartz, Domestic

Red Lead

Rouge Thiviere

Rutile granular

Rutile, finely ground

Saltpeter, Crystals

Saltpeter, Granulated

Saltpeter, Powder

Sand

Schwarzoxyd

Selenium

Selenaite Soda

CHEMICALS—Continued

Selenite

Silica

Silex

Smalte

Soap, Soft

Soda Ash, 58%

Soda Bi-Carbonate

Soda, Calcined

Soda Carbonate

Soda Nitrate Refined, Crystals

Soda Nitrate Refined, Granulated

Soda Nitrate Refined, Powder

Soda Nitrate, Crude

Soda Sal

Soda Sulphate

Stannic Acid

Steatite

Tin Oxide, C. P., Al

Ask for separate "Notes" on Oxide of Tin

Tin Ash

Talcum

Umber, Burnt

Uranium, Oxide, Yellow

Uranium, Oxide, Orange

Uranium Nitrate

White Lead, Dry

Whiting

Whiting, Commercial

Whiting, Gilders

Whiting, Extra Gilders

Metal Pyrometers

CHEMICALS—Continued

Whiting, Paris White.....
Whiting, English Cliffstone.....
.....
Zinc Oxide, AA1.....
Zinc Oxide, A1.....
Zinc Oxide, W.....
Zinc Oxide, Red Seal.....
Zinc Oxide, Green Seal.....
Zinc Oxide, White Seal.....
Zaffer.....

Metal Pyrometers

For Ceramic, etc., Purposes

Melting points according to Princeps. These alloys serve to ascertain approximate temperatures in different parts of a kiln, etc. Little strips of the alloy are placed upright in crucibles filled with sand or magnesia. The crucibles are placed wherever needed and so as to be seen through spyholes from the outside. The temperature is indicated when the alloy strip melts down to a little ball. A simple bending over of the strips must not be mistaken for the melting point.

		Celcius	Per Gramme
Cadmium, Zinc, ... For Glass	.....	315°	$ .15
	.....	412°	.15
Aluminum	Fire for Enamel Colors, Bright Gold, Burnish Gold	620°	.15
800 parts Silver, 200 parts Copper		850°	.25
950 parts Silver, 50 parts Copper		900°	.25
Fine Silver		954°	.25
400 parts Silver 600 parts Gold ...	China Fire	1020°	.75
Fine Gold		1075°	1.00
950 parts Gold 50 parts Platinum		1100°	1.25
900 parts Gold 100 parts Platinum		1130°	1.30
850 parts Gold 150 parts Platinum		1160°	1.35
800 parts Gold 200 parts Platinum		1190°	1.40
750 parts Gold 250 parts Platinum		1220°	1.45
700 parts Gold 300 parts Platinum	Porcelain Fire	1255°	1.50
600 parts Gold 400 parts Platinum		1320°	1.60
550 parts Gold 450 parts Platinum		1350°	1.65
500 parts Gold 500 parts Platinum		1385°	1.70
450 parts Gold 550 parts Platinum		1420°	1.75
400 parts Gold 600 parts Platinum		1460°	1.80
350 parts Gold 650 parts Platinum		1495°	1.85
300 parts Gold 700 parts Platinum		1535°	1.90
250 parts Gold 750 parts Platinum		1570°	1.95
200 parts Gold 800 parts Platinum		1610°	2.00
150 parts Gold 850 parts Platinum		1650°	2.00
100 parts Gold 900 parts Platinum		1690°	2.00
50 parts Gold 950 parts Platinum		1730°	2.00
Platinum, pure		1775°	2.00

Made in America—Prices subject to change

SEGER CONES

and Corresponding Temperatures

Cone No.	°Celsius	°Fahrenheit
022	590	1094
021	620	1148
020	650	1202
019	680	1256
018	710	1310
017	740	1364
016	770	1418
015	800	1472
014	830	1526
013	860	1580
012	890	1634
011	920	1688
010	950	1742
09	970	1778
08	990	1814
07	1010	1850
06	1030	1886
05	1050	1922
04	1070	1958
03	1090	1994
02	1110	2030
01	1130	2066

Lustres Gold and Overglaze Colors 022—010

Soft Burned Clay Manufacturers, Stove Tile 015—01

German and English Glostkiln 09—3

SEGER CONES—Continued

Cone No.	°Celsius	°Fahrenheit
1	1150	2102
2	1170	2138
3	1190	2174
4	1210	2210
5	1230	2246
6	1250	2282
7	1270	2318
8	1290	2354
9	1310	2390
10	1330	2426
11	1350	2462
12	1370	2498
13	1390	2534
14	1410	2570
15	1430	2606
16	1450	2642
17	1470	2678
18	1490	2714
19	1510	2750
20	1530	2786
21	1550	2822
22	1570	2858
23	1590	2894
24	1610	2930
25	1630	2966

English Glostkiln 09—3

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SEGER CONES—Continued

For testing refactory qualities of clay and allied materials 26—39

Cone No.	°Celsius	°Fahrenheit
26	1650	3002
27	1670	3038
28	1690	3074
29	1710	3110
30	1730	3146
31	1750	3182
32	1770	3218
33	1790	3254
34	1810	3290
35	1830	3326
36	1850	3362
37	1870	3398
38	1890	3434
39	1910	3470

Directions to convert from one Thermometer Scale into another

1. Fahrenheit degrees into Centigrade, substract 32, divide by 9, and multiply by 5.
2. Fahrenheit degrees into Reaumur, substract 32, divide by 9, and multiply by 4.
3. Centigrade degrees into Fahrenheit, divide by 5, multiply by 9, and add 32.
4. Reaumur degrees into Fahrenheit, divide by 4, multiply by 9, and add 32.
5. Centigrade degrees into Reaumur, divide by 5, and multiply the quotient by 4.
6. Reaumur degrees into Centigrade, divide by 4, and multiply the quotient by 5.

INTERNATIONAL ATOMIC WEIGHTS, 1912

Symbol		Atomic Weights
Al.	Aluminum	27.1
Sb.	Antimony	120.2
A.	Argon	39.88
As.	Arsenic	74.96
Ba.	Barium	137.37
Bi.	Bismuth	208.0
B.	Boron	11.0
Br.	Bromine	79.92
Cd.	Cadmium	112.40
Cs.	Caesium	132.81
Ca.	Calcium	40.07
C.	Carbon	12.00
Ce.	Cerium	140.25
Cl.	Chlorine	35.46
Cr.	Chromium	52.0
Co.	Cobalt	58.97
Cb.	Columbium	93.5
Cu.	Copper	63.57
Dy.	Dysprosium	162.5
Er.	Erbium	167.7
Eu.	Europium	152.0
F.	Fluorine	19.0
Gd.	Gadolinium	157.3
Ga.	Gallium	69.9
Ge.	Germanium	72.5
Gl.	Glucinum	9.1
Au.	Gold	197.2
He.	Helium	3.99
H.	Hydrogen	1.008
In.	Indium	114.8
I.	Iodine	126.92
Ir.	Iridium	193.1
Fe.	Iron	55.84
Kr.	Krypton	82.92
La.	Lanthanum	139.0
Pb.	Lead	207.10
Li.	Lithium	6.94
Lu.	Lutecium	174.0
Mg.	Magnesium	24.32
Mn.	Manganese	54.93
Hg.	Mercury	200.6

INTERNATIONAL ATOMIC WEIGHTS—Continued

Symbol		Atomic Weights
Mo.	Molybdenum	96.0
Nd.	Neodymium	144.3
Ne.	Neon	20.2
Ni.	Nickel	58.68
Nt.	Niton (radium emanation)	222.4
N.	Nitrogen	14.01
Os.	Osmium	190.9
O.	Oxygen	16.00
Pd.	Palladium	106.7
P.	Phosphorus	31.04
Pt.	Platinum	195.2
K.	Potassium	39.10
Pr.	Praseodymium	140.6
Ra.	Radium	226.4
Rh.	Rhodium	102.9
Rb.	Rubidium	85.45
Ru.	Ruthenium	101.7
Sa.	Samarium	150.4
Sc.	Scandium	44.1
Se.	Selenium	79.2
Si.	Silicon	28.3
Ag.	Silver	107.88
Na.	Sodium	23.00
Sr.	Strontium	87.63
S.	Sulphur	32.07
Ta.	Tantalum	181.5
Te.	Tellurium	127.5
Tb.	Terbium	159.2
Tl.	Thallium	204.0
Th.	Thorium	232.4
Tm.	Thulium	168.5
Sn.	Tin	119.0
Ti.	Titanium	48.1
W.	Tungsten	184.0
U.	Uranium	238.5
V.	Vanadium	51.0
Xe.	Xenon	130.2
Yb.	Ytterbium (Neoytterbium)	172.0
Yt.	Yttrium	89.0
Zn.	Zinc	65.37
Zr.	Zirconium	90.6

WEIGHTS AND MEASURES

TROY WEIGHTS

		Equivalent
1 grain	=	.0648 grams
24 grains = 1 pennyweight (dwt)	=	1.555 grams
20 pennyweights = 1 ounce = 480 grains	=	31.10348 grams
12 ounces = 1 pound = 5760 grains	=	373.24176 grams .37324 kilo

AVOIRDUPOIS WEIGHTS

$27\frac{11}{32}$ grains = 1 dram		
16 drams = 1 ounce = $437\frac{1}{2}$ grains	=	28.3495 grams
16 ounces = 1 pound = 7000 grains	=	453.5924 grams .45359 kilo
25 pounds = 1 quarter		
4 quarters = 1 hundredweight (cwt)	=	45.359 kilo
2000 pounds = 1 short ton	=	907.18 kilo
2240 pounds = 1 long ton	=	1016.0573 kilo

DRY MEASURE

2 pints = 1 quart	=	1.101 Litres
8 quarts = 1 peck	=	8.808 Litres
4 pecks = 1 bushel	=	35.232 Litres

LIQUID MEASURE

1 gill	=	.11829 Litre
4 gills = 1 pint	=	.47318 Litre
2 pints = 1 quart	=	.94636 Litres
4 quarts = 1 gallon	=	3.78543 Litres
$31\frac{1}{2}$ gallons = 1 barrel	=	119.241 Litres
2 barrels = 1 hogshead	=	2.38448 Hectolitres

LINEAR MEASURE

1 inch	=	25.4001 Millimetres
12 inches = 1 foot	=	.3048 Metre
3 feet = 1 yard	=	.9144 Metre
$5\frac{1}{2}$ yards = 1 rod or pole	=	5.0292 Metre
40 rods = 1 furlong	=	201.168 Metre
8 furlongs = 1 statute mile	=	1.60935 Kilometre

WEIGHTS AND MEASURES

SQUARE MEASURE

				Equivalent
		1 square inch	= 6.452	Sq. Centi.
144	square inches	= 1 square foot	= 9.290	Sq. Deci.
9	square feet	= 1 square yard	= .836	Sq. Metre
30¼	square yards	= 1 sq. rod or perch	= 25.292	Sq. Metre
40	square rods	= 1 rood	= .10117	Hectare
4	roods	= 1 acre	= .4047	Hectare
640	acres	= 1 square mile	= 259.008	Hectares

CUBIC MEASURE

	1 cubic inch	= 16.387	cubic centimetres
1728 cubic inches	= 1 cubic foot	= .02832	cubic metre
27 cubic feet	= 1 cubic yard	= .765	cubic metre

METRIC SYSTEM AND EQUIVALENTS

WEIGHT MEASURES

	Grams	Troy Grains	Troy Ounce	Troy Lbs.	Avoir. Ounce	Avoir. Lbs.
Milligram	.001	.01543	.....	.....	.....	.....
Centigram	.01	.15432	.....	.....	.....	.....
Decigram	.1	1.5432	.003	.....	.....	.....
Gram	1.	15.432	.032	.00267	.03528	.0022047
Decagram	10.	.....	.321	.02679	.3528	.022046
Hectogram	100.	.....	3.215	.26792	3.52758	.22046
Kilogram	1,000.	.....	32.150	2.6792	35.2758	2.2046
Myriagram	10,000.	.....	.....	26.792	.....	22.046
Quintal	100,000.	.....	.....	267.92	.....	220.46
Tonneau	1,000,000.	.....	.....	2679.2	.....	2204.6

LINEAR MEASURE

	Metre	Inches	Feet	Yards	Miles
Millimetre	.001	.03937	.00328	.....	.....
Centimetre	.01	.3937	.0328	.....	.....
Decimetre	.1	3.937	.32808	.10936	.....
Metre	1.	39.3704	3.2808	1.0936	.....
Decametre	10.	.....	32.808	10.936	.....
Hectometre	100.	.....	328.08	109.36	.0621375
Kilometre	1,000.	.....	3,208.8	1,0936.6	.621375
Myriametre	10,000.	.....	32,808.	10,936.	6.21375

SQUARE MEASURE

	Sq. Metre	Sq. Inch	Sq. Feet	Sq. Yard	Acres
Square Centimetre	.0001	.155	.....	.....	.....
Square Decimetre	.01	15.5	.10764	.01196	.....
Square Metre or Cent.	1.	1,550.03	10.764	1.196	.00024
Acre	100.	155,003.	1,076.4	119.6	.0247
Hectare	100,000.	.....	107,641.	11,960.	2.47

METRIC SYSTEM AND EQUIVALENTS

CUBIC OR SOLID MEASURE

	Cubic Metre	Cubic Inches	Cubic Feet	Cubic Yards
Cubic Centimetre	.000001	.061025	.....	.....
Cubic Decimetre	.001	61.025	.....	.....
Centistere	.01	610.25	.353156	.....
Decistere	.1	6102.5	3.53156	.13080
Stere	1.	.....	35.3156	1.3080
Decastere	10.	.....	353.156	13.080
Hectostere	100.	.....	3,531.56	130.80

DRY AND LIQUID MEASURE

	Litres	Cubic Inches	Dry	Liquid
Millilitre	.001	.061	.0018 Pint	.00845 Gill
Centilitre	.01	.6102	.018 Pint	.0845 Gill
Decilitre	.1	6.102	.18 Pint	.845 Gill
Litre	1.	61.02	1.8 Pints .908 Quarts	2.113 Pints 1.056 Quarts
Decalitre	10.	610.16 cubic ft.	9.08 Quarts	2.641 Gal.
Hectolitre	100.	3.531	2.837 Bushels	26.417 Gal.
Kilolitre	1,000.	35.31	28.378 Bushels	264.17 Gal.
Myrialitre	10,000.	353.1	283.78 Bushels	2641.7 Gal.

CONVENIENT MULTIPLES FOR CONVERSION

To Convert:		
Grains to Grams	Multiply by	.065
Ounces (Av.) to Grams	Multiply by	28.35
Ounces (Troy) to Grams	Multiply by	31.103
Pounds (Av.) to Grams	Multiply by	453.6
Pounds (Troy) to Grams	Multiply by	373.2
Pounds (Av.) to Kilo	Multiply by	.453
Pounds (Troy) to Kilo	Multiply by	.373
Ton (2000 lbs.) to Kilo	Multiply by	907.
Ton (2240 lbs.) to Kilo	Multiply by	1016.
Inches to Millimetres	Multiply by	25.4
Inches to Centimetres	Multiply by	2.54
Feet to Metres	Multiply by	.3048
Yards to Metres	Multiply by	.9144
Yards to Kilometres	Multiply by	.0009
Miles to Kilometres	Multiply by	1.6
Grams to Grains	Multiply by	15.4
Grams to Ounce (Av.)	Multiply by	.035
Grams to Ounce (Troy)	Multiply by	.032
Kilogram to Ounces (Av.)	Multiply by	35.3
Kilogram to Ounces (Troy)	Multiply by	32.1
Kilogram to Pounds (Av.)	Multiply by	2.205
Kilogram to Pounds (Troy)	Multiply by	2.679
Kilogram to Ton (2000 lbs.)	Multiply by	.0011
Kilogram to Ton (2240 lbs.)	Multiply by	.001
Millimetres to Inches	Multiply by	.04
Centimetres to Inches	Multiply by	.4
Metres to Feet	Multiply by	3.3
Metres to Yards	Multiply by	1.1
Kilometres to Yards	Multiply by	1093.6
Kilometres to Miles	Multiply by	.62

Directions for the use of

SULPHATE OF COBALT

An Advantageous Substitute for Oxide of Cobalt for the coloring and decoloring of earthenware.

Sulphate of Cobalt has been introduced for the decolorization of the mass by many manufacturers of earthenware abroad. After extensive trials it has been demonstrated that Cobalt in this form imparts a more intense and even color than is the case with Black Oxide of Cobalt. Black Oxide of Cobalt is three to three and one-half times as rich in Metallic Cobalt as the Sulphate, thus a proportionately larger quantity of the latter is necessary. Nevertheless, working with Sulphate of Cobalt is more economical, more advantageous and much more agreeable than with the Black Oxide of Cobalt. When Sulphate of Cobalt is dissolved in water and poured over the mass it permeates the same very thoroughly and evenly. It is also permissible to incorporate the Sulphate of Cobalt, as it is, directly into the mass.

Another feature of special interest to the manufacturers of earthenware, who have to contend with an excess of Lime in the mass, is, that the Lime has a great affinity for the Sulphate of Cobalt.

Directions for the use of

GREEN GOLD PASTE

In Connection with Frankfort Liquid Bright Gold

For the production of

LIGHT COLORED EFFECTS

(Imitation of Burnish Gold)

Green Gold Paste may be used in connection with LIQUID BRIGHT GOLD in two ways: First covering the object to be decorated with an even layer of paste, firing lightly and afterwards treating with the Bright Gold in the usual manner. Another way of using the Paste is to mix the same with the LIQUID BRIGHT GOLD, about one of the former to five of the latter, and then applying in the usual way. It is advisable not to prepare any more of this mixture than is needed for the time being, as when allowed to stand, the results are not as satisfactory.

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